



ELSEVIER

Respiration Physiology 110 (1997) 319-320



Author Index

Ackland, G.L., R. Noble and M.A. Hanson, Red nucleus inhibits breathing during hypoxia in neonates 110 (1997) 251.

Ainsworth, D.M., C.A. Smith, S.W. Eicker, N.G. Ducharme, K.S. Henderson, K. Snedden and J.A. Dempsey, Pulmonary-locomotor interactions in exercising dogs and horses 110 (1997) 287.

Babcock, M.A., see Badr, M.S. 110 (1997) 33.

Bach, K.B., see Turner, D.L. 110 (1997) 277.

Badr, M.S., A. Kawak, J.B. Skatrud, M.J. Morrell, B.R. Zahn and M.A. Babcock, Effect of induced hypocapnic hyponea on upper airway patency in humans during NREM sleep 110 (1997) 33.

Bayliss, D.A., F. Viana, E.M. Talley and A.J. Berger, Neuro-modulation of hypoglossal motoneurons: cellular and developmental mechanisms 110 (1997) 139.

Beitner-Johnson, D., G.E. Shull, J.R. Dedman and D.E. Millhorn, Regulation of gene expression by hypoxia: A molecular approach 110 (1997) 87.

Berger, A.J., see Bayliss, D.A. 110 (1997) 139.

Bischoff, A.M., see Richter, D.W. 110 (1997) 113.

Borday, V., G. Fortin and J. Champagnat, Early ontogeny of rhythm generation and control of breathing 110 (1997) 245.

Brownfield, M., see Turner, D.L. 110 (1997) 277.

Bruce, E.N., Chemoreflex and vagal afferent mechanisms enhance breath to breath variability of breathing 110 (1997) 237.

Canet, E., see Praud, J.-P. 110 (1997) 1.

Champagnat, J., see Borday, V. 110 (1997) 245.

Chevalier, J.-Y., see Praud, J.-P. 110 (1997) 1.

Cruz, J.C., D.-R. Jeng, D. Han, G. Wu and X.F. Flores, Ventilation inhomogeneities and mixed venous blood N_2 in multibreath N_2 washout 110 (1997) 47.

Czyzyk-Krzeska, M.F., Molecular aspects of oxygen sensing in physiological adaptation to hypoxia 110 (1997) 99.

Dedman, J.R., see Beitner-Johnson, D. 110 (1997) 87.

Dempsey, J.A., see Ainsworth, D.M. 110 (1997) 287.

Diaz, V., see Praud, J.-P. 110 (1997) 1.

Dogas, Z., see McCrimmon, D.R. 110 (1997) 161.

Donnelly, D.F., Are oxygen dependent K^+ channels essential for carotid body chemo-transduction? 110 (1997) 211.

Ducharme, N.G., see Ainsworth, D.M. 110 (1997) 287.

Eicker, S.W., see Ainsworth, D.M. 110 (1997) 287.

Elsen, F.P., see Ramirez, J.M. 110 (1997) 71.

Erlichman, J.S. and J.C. Leiter, Comparative aspects of central CO_2 chemoreception 110 (1997) 177.

Faffe, D.S., see Rocco, P.R.M. 110 (1997) 9.

Feijoo, M., see Rocco, P.R.M. 110 (1997) 9.

Flores, X.F., see Cruz, J.C. 110 (1997) 47.

Foley, K.T., see Turner, D.L. 110 (1997) 277.

Forster, H.V., P.J. Ohtake, L.G. Pan and T.F. Lowry, Effect on breathing of surface ventrolateral medullary cooling in awake, anesthetized and asleep goats 110 (1997) 187.

Fortin, G., see Borday, V. 110 (1997) 245.

Fregosi, R.F. and D.D. Fuller, Respiratory-related control of extrinsic tongue muscle activity 110 (1997) 295.

Fuller, D.D., see Fregosi, R.F. 110 (1997) 295.

Funk, G.D., M.A. Parkis, S.R. Selvaratnam and C. Walsh, Developmental modulation of glutamatergic inspiratory drive to hypoglossal motoneurons 110 (1997) 125.

Ganesan, S., C.-S. Man and S.J. Lai-Fook, Generation and detection of lung stress waves from the chest surface 110 (1997) 19.

Haji, A., see Richter, D.W. 110 (1997) 113.

Han, D., see Cruz, J.C. 110 (1997) 47.

Hanefeld, F., see Richter, D.W. 110 (1997) 113.

Hanson, M.A., see Ackland, G.L. 110 (1997) 251.

Harris, M.B., see Milsom, W.K. 110 (1997) 307.

Hayashi, F., see McCrimmon, D.R. 110 (1997) 161.

Henderson, K.S., see Ainsworth, D.M. 110 (1997) 287.

Hinrichsen, C.F.L., see McCrimmon, D.R. 110 (1997) 161.

Hopp, F.A., see McCrimmon, D.R. 110 (1997) 161.

Horn, E.M. and T.G. Waldrop, Oxygen-sensing neurons in the caudal hypothalamus and their role in cardiorespiratory control 110 (1997) 219.

Jeng, D.-R., see Cruz, J.C. 110 (1997) 47.

Kawak, A., see Badr, M.S. 110 (1997) 33.

Kianicka, I., see Praud, J.-P. 110 (1997) 1.

Krolo, M., see McCrimmon, D.R. 110 (1997) 161.

Kubin, L., see Okabe, S. 110 (1997) 151.

Lai-Fook, S.J., see Ganesan, S. 110 (1997) 19.

Lalley, P.M., see Richter, D.W. 110 (1997) 113.

Leiter, J.C., see Erlichman, J.S. 110 (1997) 177.

Ling, L., E.B. Olson, Jr., E.H. Vidruk and G.S. Mitchell, Developmental plasticity of the hypoxic ventilatory response 110 (1997) 261.

Lowry, T.F., see Forster, H.V. 110 (1997) 187.

Mackiewicz, M., see Okabe, S. 110 (1997) 151.

Man, C.-S., see Ganesan, S. 110 (1997) 19.

Martin, P.A., see Turner, D.L. 110 (1997) 277.

Ma, X. and N.L. Stephens, The cytoskeleton and the extracellular matrix in sensitized canine tracheal smooth muscle 110 (1997) 57.

McCrivmon, D.R., E.J. Zuperku, F. Hayashi, Z. Dogas, C.F.L. Hinrichsen, E.A. Stuth, M. Tonkovic-Capin, M. Krolo and F.A. Hopp, Modulation of the synaptic drive to respiratory premotor and motor neurons 110 (1997) 161.

Menezes, S.L., see Rocco, P.R.M. 110 (1997) 9.

Mifflin, S.W., Short-term potentiation of carotid sinus nerve inputs to neurons in the nucleus of the solitary tract 110 (1997) 229.

Millhorn, D.E., see Beitner-Johnson, D. 110 (1997) 87.

Milsom, W.K., M.B. Harris and S.G. Reid, Do descending influences alternate to produce episodic breathing? 110 (1997) 307.

Mitchell, G.S., see Ling, L. 110 (1997) 261.

Mitchell, G.S., see Turner, D.L. 110 (1997) 277.

Morrell, M.J., see Badr, M.S. 110 (1997) 33.

Noble, R., see Ackland, G.L. 110 (1997) 251.

Ohtake, P.J., see Forster, H.V. 110 (1997) 187.

Okabe, S., M. Mackiewicz and L. Kubin, Serotonin receptor mRNA expression in the hypoglossal motor nucleus 110 (1997) 151.

Olsen, E.B., see Turner, D.L. 110 (1997) 277.

Olson, E.B., Jr., see Ling, L. 110 (1997) 261.

Pan, L.G., see Forster, H.V. 110 (1997) 187.

Parkis, M.A., see Funk, G.D. 110 (1997) 125.

Pierrefiche, O., see Richter, D.W. 110 (1997) 113.

Praud, J.-P., V. Diaz, I. Kianicka, J.-Y. Chevalier, E. Canet and Y. Thisdale, Abolition of breathing rhythmicity in lambs by CO₂ unloading in the first hours of life 110 (1997) 1.

Quellmalz, U.J.A., see Ramirez, J.M. 110 (1997) 71.

Ramirez, J.M., P. Telgkamp, F.P. Elsen, U.J.A. Quellmalz and D.W. Richter, Respiratory rhythm generation in mammals: synaptic and membrane properties 110 (1997) 71.

Reid, S.G., see Milsom, W.K. 110 (1997) 307.

Richter, D.W., P.M. Lalley, O. Pierrefiche, A. Haji, A.M. Bischoff, B. Wilken and F. Hanefeld, Intracellular signal pathways controlling respiratory neurons 110 (1997) 113.

Rocco, P.R.M., D.S. Faffe, M. Feijóo, S.L. Menezes, F.P. Vasconcellos and W.A. Zin, Effects of uni- and bilateral phrenicotomy on active and passive respiratory mechanics in rats 110 (1997) 9.

Selvaratnam, S.R., see Funk, G.D. 110 (1997) 125.

Shea, S.A., Life without ventilatory chemosensitivity 110 (1997) 199.

Shull, G.E., see Beitner-Johnson, D. 110 (1997) 87.

Skatrud, J.B., see Badr, M.S. 110 (1997) 33.

Smith, C.A., see Ainsworth, D.M. 110 (1997) 287.

Snedden, K., see Ainsworth, D.M. 110 (1997) 287.

Stephens, N.L., see Ma, X. 110 (1997) 57.

Strohl, K.P. and A.J. Thomas, Neonatal conditioning for adult respiratory behavior 110 (1997) 269.

Stuth, E.A., see McCrimmon, D.R. 110 (1997) 161.

Talley, E.M., see Bayliss, D.A. 110 (1997) 139.

Telgkamp, P., see Ramirez, J.M. 110 (1997) 71.

Thisdale, Y., see Praud, J.-P. 110 (1997) 1.

Thomas, A.J., see Strohl, K.P. 110 (1997) 269.

Tonkovic-Capin, M., see McCrimmon, D.R. 110 (1997) 161.

Turner, D.L., K.B. Bach, P.A. Martin, E.B. Olsen, M. Brownfield, K.T. Foley and G.S. Mitchell, Modulation of ventilatory control during exercise 110 (1997) 277.

Vasconcellos, F.P., see Rocco, P.R.M. 110 (1997) 9.

Viana, F., see Bayliss, D.A. 110 (1997) 139.

Vidruk, E.H., see Ling, L. 110 (1997) 261.

Waldrop, T.G., see Horn, E.M. 110 (1997) 219.

Walsh, C., see Funk, G.D. 110 (1997) 125.

Whelan, O., Foreword 110 (1997) 69.

Wilken, B., see Richter, D.W. 110 (1997) 113.

Wu, G., see Cruz, J.C. 110 (1997) 47.

Zahn, B.R., see Badr, M.S. 110 (1997) 33.

Zin, W.A., see Rocco, P.R.M. 110 (1997) 9.

Zuperku, E.J., see McCrimmon, D.R. 110 (1997) 161.



Subject Index

Airways
smooth muscle, shortening capacity, 57

Amphibian
bullfrog, 307

Apnea
central, neonate, 1

Blood gases
control, sleep, wakefulness, 199

Brainstem
bulbospinal neurons, synaptic modulation, 161
hypoglossal motor nucleus, 5-HT receptors, 151
nuclei, NTS, short-term potentiation, 229
pontine respiratory group, 307
red nucleus, hypoxic respiratory inhibition, 251
respiratory neurons, synaptic transmission, 71

Breathing pattern
limb movements, 287

Carotid body
hypoxia, developmental plasticity, 261
hypoxia, O₂ sensing, molecular mechanisms, 99
hypoxia-sensing mechanisms, 211

Carotid sinus
nerve, NTS stimulation, 229

Channels
ion, central respiratory neurons, 113
K⁺, hypoxia, glomus cell, 211

Chemoreceptor
CO₂, function, 177
peripheral, pattern of breathing, 237

Control of breathing
chemoreception, sleep, wakefulness, 199
chemosensitivity, 177
CO₂, neonate, 1
exercise, neuromodulation, 277
hypoglossal motoneurons, development, 125
hypoglossal motor nucleus, 5-HT receptors, 151
hypoxia, 87
hypoxia, carotid body, glomus cell, 211
hypoxia, developmental plasticity, 261
hypoxia, hypothalamus, 219
hypoxia, O₂ sensing, 99
hypoxic ventilatory response, 251
medullary neurons, signal pathways, 113
NTS, short-term potentiation, 229

pattern formation, episodic breathing, 307
pattern, phrenicotomy, 9
phrenic motoneurons, synaptic modulation, 161
reduced ventilatory drive, upper airways, 33
rhythm generation, 71, 245
tongue muscle, 295
upper airways, 139
vagal afferents, pattern of breathing, 237
ventrolateral medulla, 187

Cooling
surface ventral medulla, 187

Development
hypoxic control, 261
neonate, breathing rhythmicity, CO₂, 1
pattern generation, 245
postnatal, hypoglossal motoneurons, 125

Disease
congenital central hypoventilation syndrome, 199

Edema
pulmonary, stress waves, 19

Exercise
breathing pattern, 287
moderate dynamic, ventilation, 277

Gas exchange
lung gas mixing, 47

Gene
expression, hypoxia, 87
transgenic mice, 245

Hyperresponsiveness
airway smooth muscle, 57

Hypocapnia
neonate, 1

Hypothalamus
control of breathing, 219

Hypoxia
biphasic ventilatory response, 251
development, 261
glomus cell, K⁺ channels, 211
O₂ sensing, 99
regulation of gene expression, 87
ventilatory response, 219

Inert gases
lung washout, 47

Invertebrates

pulmonate snail (*Helix aspersa*), 177

Mammals

dog, 57, 161, 287

elephant-seal, 307

goat, 187

golden-mantled ground squirrel, 307

horse, 287

humans, 33, 199

lamb, 1

mouse, 71, 245

pig, 19

rat, 9, 151, 161, 229, 237, 261, 269, 295

Mechanics of breathing

phrenicotomy, 9

stress waves, thoracic distortion, 19

Mediators

5-HT, receptors, 151

ATP, 125

norepinephrine, 125, 139

serotonin, 139, 277

thyrotropin-releasing hormone, 125, 139

Models

stratified, parallel heterogeneity, 47

Muscle

diaphragm, phrenicotomy, 9

respiratory, 287

tongue, respiratory co-activation, 295

Neonate

conditioning, respiratory pattern, 269

Nerve

hypoglossus, postnatal development, 125

phrenic, sectioning, 9

vagus, 307

Neurons

hypoglossal, airways resistance, 139

Oxygen

sensing, hypoxia, molecular mechanisms, 99

Pattern of breathing

development, 269

episodic breathing, 307

neonate, CO₂, 1

ontogeny, transgenic mice, 245

peripheral chemoreceptors, 237

phrenicotomy, 9

rhythm generation, 71

Receptors

medullary respiratory neurons, 113

Resistance

upper airways, hypoglossal control, 139

Short-term potentiation

respiratory neurons, 161

Sleep

chemoreceptor control, 199

upper airway patency, 33

Smooth muscle

airways, sensitized, shortening capacity, 57

Synapse

brainstem, rhythm generation, 71

Transmitter

GABA, 161

Upper airways

patency, hypopnea, 33

resistance, hypoglossal control, 139

Ventilation

moderate exercise, 277

